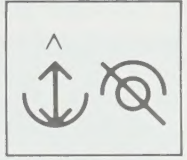


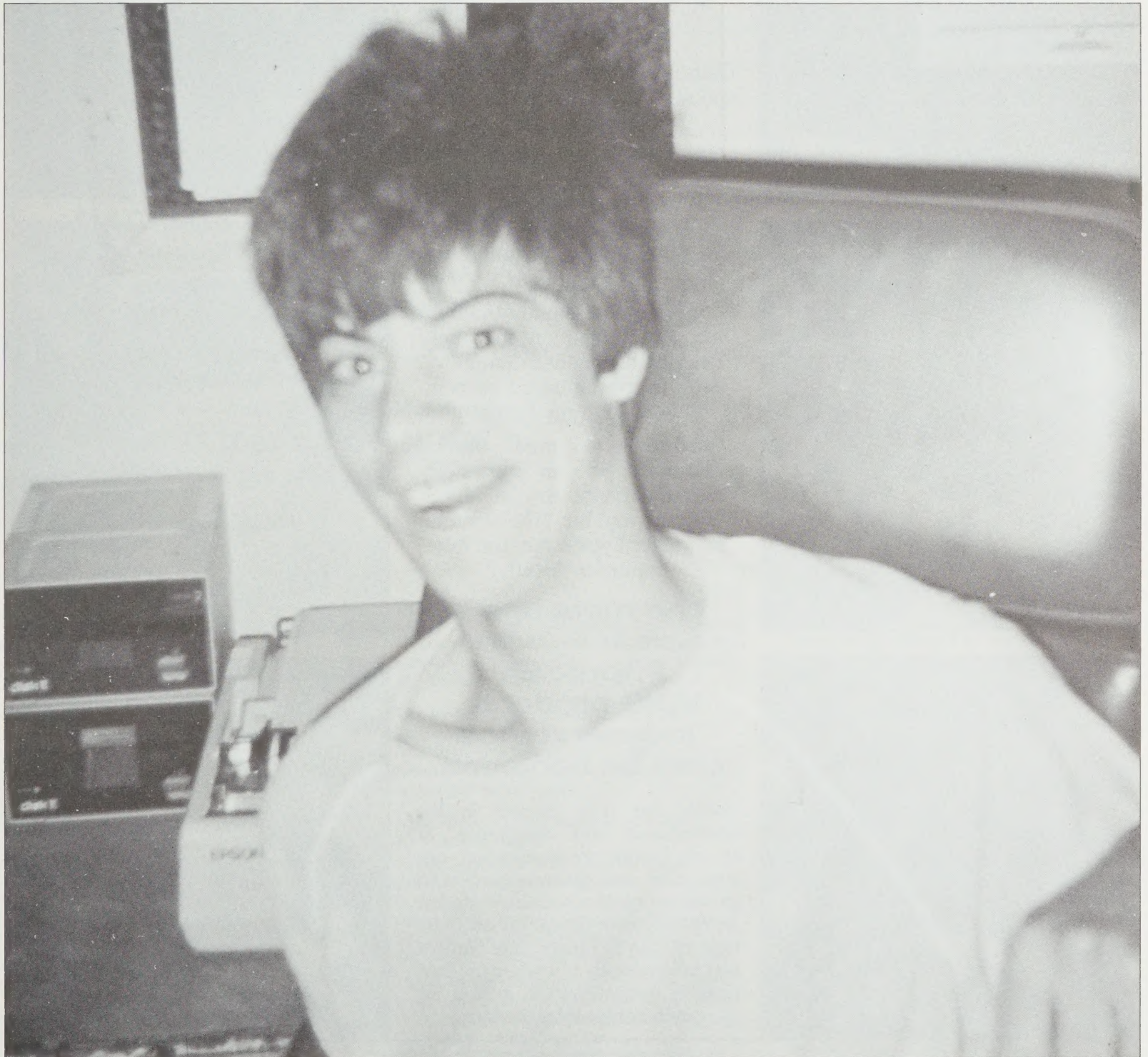
COMMUNICATING TOGETHER



A QUARTERLY MAGAZINE ABOUT AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

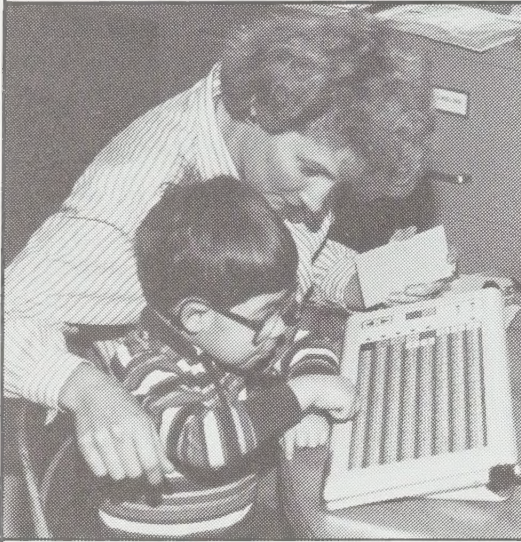
VOLUME 4, NUMBER 3

SEPTEMBER 1986



PHONIC EAR VOIS

INDEPENDENCE THROUGH COMMUNICATION



**Phonic Ear believes:
Improving the
quality of life
for people who
are nonspeaking
is key.**

Comments from users of our speech output products prove this to be true:

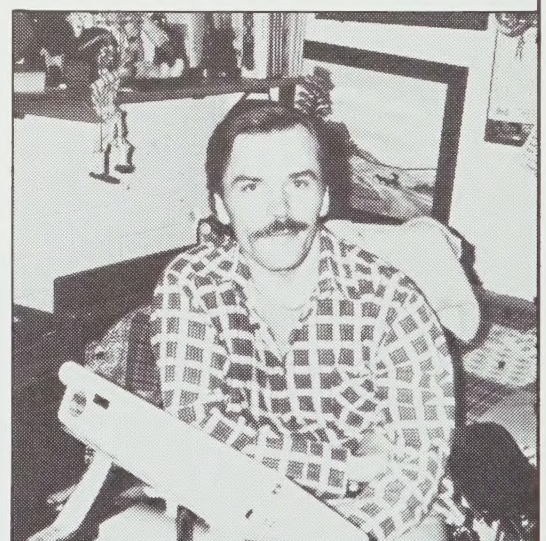
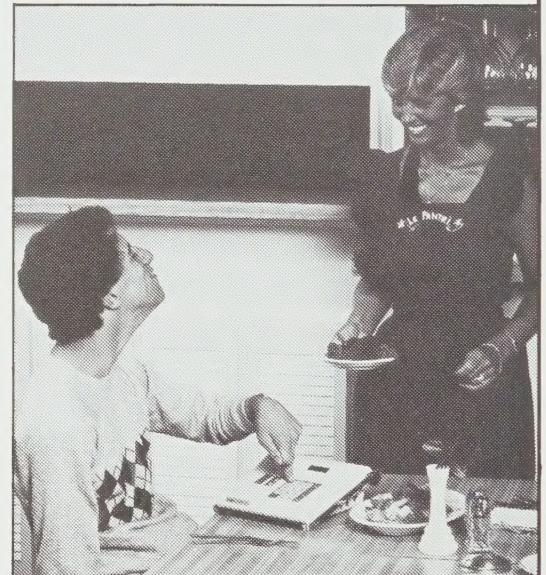
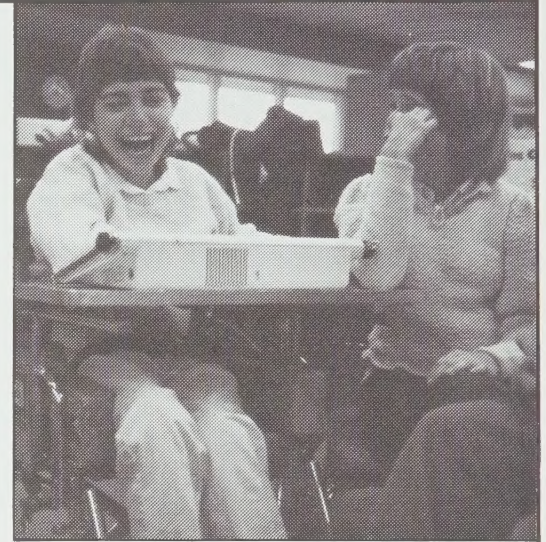
"My students like to hear my 'voice' call their names. With the VOIS 140 memory, I have more freedom to talk and work with students in class and on the playground."

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independently in her own apartment.

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INDEPENDENCE

SYLVIA MOSHER

Sylvia Mosher is a young cerebral palsied woman who made the move to independent living last year. She shares her apartment with a non-speaking friend. In the apartment building are several apartments designed for disabled people, and administered by the Home Supply Services Program of the March of Dimes. Support and assistance are available to residents as needed.

Ms. Mosher is able to speak, but in her younger years sometimes used an alphabet board to supplement her speech when talking to new people. For written communication she uses an Apple Computer, and she is eagerly awaiting the arrival of a Unicorn keyboard.

Ms. Mosher first wrote for Communicating Together in Vol. 4 No. 1., March 1986. Now, after a year of independent living, she has some new insights into the meaning of independence for the disabled. She shares her ideas with us in this article.

Independence means different things to each individual person. To one person it may mean being able to go out whenever she wants to. To another it may mean turning a page in a book. Independence is one of the hardest things to understand, because it has such a wide variety of meanings. It is something each person has to define for herself. No one is capable of being independent in every aspect of life. Some people are just not aware of the difficulties that others may be having in their struggle for independence. It is fine to be independent if a person can handle the situation properly, but others should be aware of the difficulties encountered by disabled people in attaining this goal. I believe, to be independent one must realize her potential, but also know her limitations.

It's The Simple Things That Count

For wheelchair disabled persons, everyday life is a struggle towards personal independence. Some seem to be constantly waiting for others to come and assist them with simple

routines. It is as if they are on someone else's schedule, instead of their own. Achieving independence in an activity, no matter how insignificant the activity, can become a great satisfaction. The person in the wheelchair for example, is always striving to accomplish what others may think of as very simple, such as picking up a piece of paper from a coffee table. When the person finally gets that paper in her hand, she feels that she has really accomplished something. It may not seem like much to anyone else, but for the disabled person it is a personal victory. She can actually tell everyone that she picked up paper from a coffee table by herself. When your life is regulated by someone else's clock, it feels great just to be able to do something completely for yourself, by yourself. It is a positive step towards being independent.

What You Can And Cannot Do

People may not realize it, but when they tell a disabled person she is able to do something that she knows she cannot do, she feels really hurt. It is as though nondisabled people think that disabled people do not understand their own capabilities. Sometimes, the disabled person feels that she must be grateful for

everything that is given to her to help her become more independent. Often though, the aids that are purchased for the disabled are neither what is really needed or wanted. Because those who are purchasing aids are often not disabled themselves, they don't realize what is involved in using them. Sometimes because of the budget, something is ordered which seems similar on paper but in use may be totally different. Indeed, the disabled person should be grateful for the things she receives, but she should also have the right to complain if things don't work out. This is particularly so if these aids become more of a hindrance than a help to her situation. Sometimes, independence is just knowing what you can and cannot do.

Learning To Say "No"

Disabled people are always striving to be as independent as possible. Saying "no" to others is one major step. For many people, refusing to do something is not hard to do. But for some disabled, it's very difficult because they feel guilty in doing so. It is important that they overcome this feeling, for saying "no" can be a very positive response. It can mean that they would rather do something



Sylvia Mosher at the computer workstation set up in her apartment.

by themselves. Disabled people are just like any other people; they have rights. They have to stick up for themselves, or else others will walk all over them. Independence may mean being able to assert oneself whenever the need arises.

Mistakes are a fact of life, and like everybody else, disabled people often make them. The disabled have to do a lot of experimenting to find out what they can and cannot handle. For some, it is a challenge from the time they get up in the morning until the time they go to bed at night. Disabled people are usually not afraid to make mistakes, because it helps them to become more aware of what their capabilities are. It also helps to instill in them the patience that is necessary for life itself. Mistakes should be a learning experience for all people, but it really depends on what the individual wants to make of her mistakes. To be independent, one must be willing to make mistakes, and then learn from them.

Independence With Dependence

I believe to be independent one must realize her potential, but also know her limitations. When a person accomplishes something by herself, she has the feeling of being useful. She needs to know she is respected in her decisions; after all, she does have a mind of her own. It is important for the individual to have the right to refuse something if it does not meet with her approval. She must also be ready to face challenges that could lead to mistakes, gaining the ability to deal with them. Independence has the greatest impact on people who know what it is like to be dependent upon others. □

INTERNATIONAL NEWS

CSEC Welcomes BCI Affiliates

ANNE WARRICK

Anne Warrick, along with BCI staff members, Affiliates and associates attended the annual BCI North American Affiliate meeting, May 4th to 6th, 1986. Mrs. Warrick describes the rewarding experiences had by all.

O is for Orlando — no doubt about it! There are three major attractions — the Communication Systems Evaluation Center (CSEC), Disneyworld and the Epcot Center. Those who recently attended the BCI North American Affiliate meeting enjoyed Floridian hospitality and the stimulation which a visit to all these attractions can bring. Let me tell you about our visit to CSEC.

O is also for Osborn — Sandy in fact — whose interest in children with speech impairments led her to explore the system of Blissymbolics, augmentative communication, student assessment and educational service delivery. She envisioned and guided the development of CSEC which has recently been selected by the American Speech-Language-Hearing Association as one of the model outreach sites of exemplary practice identified within the study "Implementation Strategies for Improving the Use of Communication Aids in Schools Serving Handicapped Children".

On the second day of our meeting we were privileged to visit CSEC. The drive between hotel and Center allowed time for some introductory learning about the program. Following our arrival, Edyth Finkley, program administrator, showed and told us more. Student evaluation takes place within two rooms. Communication between these two rooms is maintained via a speaker system, video, and observation windows. Students participate in a room which contains equipment designed to adapt to their individual needs: chairs and inserts for comfortable sitting; a variety of lap-trays; technical aids for maximum pointing skills. In addition, the cup-

boards hold a selection of toys and books which provide a focus for informal observation of each student's abilities and behaviours during the evaluation session. The second room is used for group discussion and observation, by the student's family, educators, therapists from the referring agency, and other appropriate persons. A CSEC staff member coordinates and leads the group interaction, providing pertinent information as the evaluation progresses. At the completion of each interview, feedback and staff recommendations are provided to all those who attend.

CSEC Uses Team Approach

Ms. Finkley explained that the interdisciplinary evaluation team at CSEC provides assessment for any student enrolled in Florida's public school system. Students are referred to the Centre by local education authorities. Once their records and support materials have been received by CSEC, the communication assessment (usually a full day appointment) can be carried out. Prior to the appointment date, extensive formal and informal data relating to the special needs of the student are requested from the referring agency. This written and video documentation serves as the CSEC staff's introduction to the child. It also allows them to focus on the student's actual performance during the evaluation.

Staff members liaise with all parties during the initial implementation of their recommendations and they are available on request, for long term follow up services. Finally, Ms. Finkley told us that the evaluation of a student's communication needs can now be carried out within many home districts through the establishment of Outreach

**This section of
Communicating Together
is sponsored by
Pilot Club International,
Ontario District.**

Centers supported by CSEC staff. CSEC sees Outreach Centers providing the additional insight into student competencies which only daily contact can identify.

Other presentations followed, outlining each team member's role within CSEC. Lee Boysen, physiotherapist, described the relationship which exists between students' physical capabilities and their ability to access communication displays. She also described the extent to which physical position affects the design of communication displays. She highlighted the importance of an holistic approach to communication — one which recognizes the importance of mobility, comfort, projection of self and development of independence. All these components influence communicative interactions and should be part of the physiotherapist's input to an interdisciplinary team.

Beth McMillan, occupational therapist, spoke of the effect which vision has on the selection of a graphic representation. Through the presentation of case studies, she shared and interpreted the information which she obtains from student

examination via the Motor Free Visual Perceptual Test. She described how this information influences her choice of a student's graphic communication system. Ms. McMillan's presentation led to some lively discussion.

Selection of a Graphic System

The morning's Medal of Bravery must be awarded to educator Sandra Decker! She chose to discuss her rationale for determining candidacy for Blissymbols versus pictures, when she selects a graphic communication medium for a student. This topic could have occupied any one of those present for a full day! Ms. Decker focussed on an informal Blissymbol assessment format used during some CSEC interviews. The assessment directly involves three people; the student, an evaluation administrator and a recorder. The administrator interacts with the student in the presentation of materials, while the recorder notes the child's performance, behaviour and communicative interaction during the session. The Blissymbols presented to the student are graded

with regard to graphic and semantic complexity, and level of required cognitive and language development. Inability on the part of the student to succeed in either recognizing, or demonstrating an ability to learn some Blissymbols within the test battery, suggests to the CSEC team that the child is more suited to augmentative communication via pictures. It does not discount the possibility of Blissymbols being introduced as the student develops.

It all sounded so wonderfully direct and yet... Ms. Decker's courage was certainly rewarded by the sharing which followed. Many points were raised in lively discussion: Pictures or Blissymbols or both? Perhaps a child's learning is directly related to a teacher's skills and creativity? Does a child with limited experience benefit from a structured teaching approach? Can you impose structure and have interaction? What's best in the short and long term or in association with technology?

Gail Van Tatenhove, speech pathologist, was the final speaker. Drawing from the works of Wiig and Semel, and Piaget, she drew a picture of the relationship between the development of cognition and language. Using this framework to consider the features and characteristics of the Blissymbol system, the development of classification skills, vocabulary, word relations and versatility, she suggested ways in which this knowledge might be applied to augmentative communication instruction, vocabulary selection, and display design. (See Augmentative Communication section, p.19) This final presentation led to enough poolside theory, logistics and philosophy to last us a whole week!

O is for ovation — from those of us who visited CSEC. We appreciated the hospitality, sharing and leadership we experienced. □

COMMUNICATION OUTLOOK

Focusing on Communication Aids and Techniques

**A Publication of the International Society for
Augmentative and Alternative Communication (ISAAC)**

Communication Outlook is an international quarterly which provides a forum for individuals interested in the application of techniques and aids for people who experience communication handicaps. It is a cross-disciplinary information source as well as a reference for those wishing to contact others working in the field of communication enhancement.

Communication Outlook features regular sections on: commercially available aids, aids under development and components to build aids; interfacing and augmenting aids; new publications and resources; centers and groups involved in various aspects of communication enhancement; innovative methods, procedures, teaching strategies and uses of materials shared by readers; and advocacy issues, including new groups, strategies and successes.

The International Society for Augmentative and Alternative Communication (ISAAC) was formed to advance the transdisciplinary field of augmentative and alternative communication techniques and aids. Membership in ISAAC includes a one-year subscription to *Communication Outlook*. ISAAC offers Student/Consumer Membership for \$15, Active Membership for \$25, Contributing Membership for \$100 and Corporate Membership for \$500. For membership information, write ISAAC, P.O. Box 1762, Station R, Toronto, Ontario M4G 4A3.

For subscription information, contact *Communication Outlook*, Artificial Language Laboratory, 405 Computer Center, Michigan State University, East Lansing, Michigan 48824-1042, (517) 353-0870.

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- Wiig, E. and E. Semel. *Language Assessment and Intervention for the Learning Disabled*, Columbus, OH: Charles E. Merrill Publishing Co., 1980.

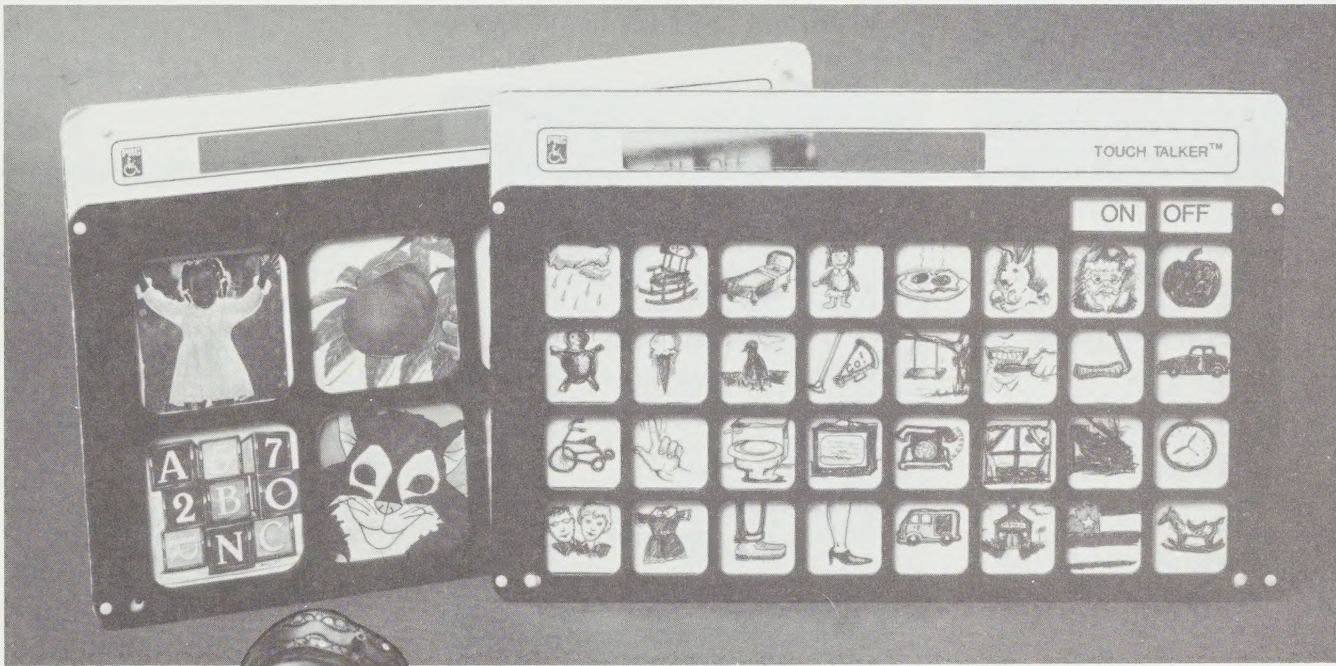
Let's Talk

Lake Kissick has cerebral palsy. He cannot talk as you and I do, but he talks easily and naturally with his HT TALKER and MINSPEAK software. If Lake had such capabilities, he could be using TOUCH TALKER, a companion device which is accessible to even the youngest user. You can choose a template for TOUCH TALKER with 8, 32, or 128 squares.

The larger-square template is excellent for those without fine motor control.

Thanks to LIGHT TALKER, Lake's isolation is over. He can reach out, express his feelings, learn and achieve. Do you know a non-speaking person who deserves the same opportunity?

- MINSPEAK and EXPRESS software available
- Connects to computer, portable printer and environmental system
- Rental program available



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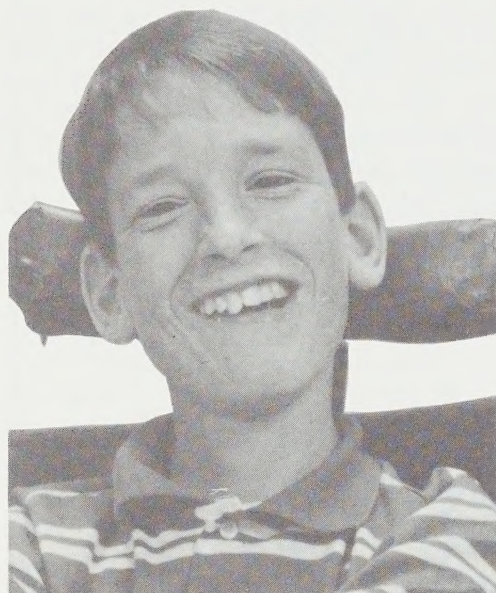
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Lake
Kissick

WP-19

A Different Magic Kingdom

ANDREW MURPHY



Andrew Murphy has been the editor of the Family and Community section of Communicating Together since the magazine began in 1982. A Blissymbol user for many years, he now uses the Mod Keyboard for written communication. Andrew and his family recently moved to Florida, but he was anxious to continue his association with us. Writing with the help of his father Mark, he now shares his new perspective with readers, and includes the stories and experiences of other augmentative communication families.

During May, my mom and I participated in the ISAAC Regional Conference on "Application of Electronic Communication Aids" which was held in Orlando, Florida. As everyone knows, Orlando is the home of Walt Disney's "Magic Kingdom," and while it is truly magic for everyone, the use of computers for nonverbal people has brought a different kind of magic into many lives, including my own.

It was a great experience for me because I was able to see many friends from Toronto, and it was also very important because I was able to meet educators from Florida and share with them my needs so that they could learn more about me and how to help me and others.

Blissapple and Mapwriter

I have had the good fortune to use both the "Blissapple" and "Mapwriter" programs and was able to review my feelings about the two programs with the ISAAC participants.

I used the Blissapple first and found it had the following advantages:

- Quicker
- Allows Blissymbol users to begin recording their ideas on the computer
- A good way to write when you can't spell.

It also has the following disadvantages:

- Tenses or verbs are often wrong
- Has a limiting vocabulary
- You need a numbered Blissboard.

The Mapwriter, on the other hand, has the following advantages:

- Makes you think about spelling, writing and sentence structure
- Is versatile, fun to use and makes it interesting when you write to friends
- Teachers can see when you need help.

Disadvantages of the Mapwriter are:

- It's only as good as your knowledge of English
- It takes a long, long time
- It is very tiring.

Overall, now that I know as much as I do about written English, I prefer the Mapwriter. Most people can understand my spelling even though I make many mistakes. It helps me improve my spelling and shows the teacher where I need help.

* * *

A few months ago, I received the following letter from John Zanetos who lives in Warminster, PA. I wish I could go bowling like John is doing in the picture. I hope he scores many strikes. It is nice to receive letters in Blissymbols that I can read. As my spelling improves, I can also understand the words. Maybe others will write soon.

* * *

D3 18, 1986

♡>| Andrew,

♡↑ for the Σ ρ >

✱⊥⊞

My ♯ is John. We use Σ^x

and a ⊗⤵ at ⊞↑⊞.

⊥1 got a ⊕⤵ ⊞. ⊥1^x

go ∧⊞ and not long ago hatched

⊞ chickens. ⊥1 am sending

⊥2 a picture. ♡↑ ⊞↑↑.

⊥2+ ⊥♡+!

John Zanetos
Bucks County I U #22
Willow Dale Elementary School
Norristown Road, Warminster, PA
18974, U.S.A.



John Zanetos tries bowling.

Editors Note:

We have printed John's letter as he wrote it to Andrew. For those not familiar with Blissymbolics, here is a full translation of his letter.

March 18, 1986

Dear Andrew,

Thanks for the Blissymbol news about camp. My name is John. We use Blissymbols and a computer at school. I got a new wheelchair. We go bowling and not long ago hatched baby chickens. I am sending you a picture. Happy Easter.

Your friend,
John Zanetos

The Mapwriter program described by Andrew Murphy is still at the prototype stage. It was developed at The Hugh MacMillan Medical Centre.

My First Panel Meeting

SARAH CATHERINE BROTHERS

Sarah Brothers is a former Blissymbol user, who now communicates with a word board or an Express III. She sent us the following report of her participation in the International Panel meeting during the BCI North American Affiliate meeting in Orlando, Florida.

On Sunday, May 4th, 1986, there was a meeting of the International Panel of Blissymbol Users. I really wanted to go and Mrs. Sandra Osborn, Senior Presenter of Blissymbolics in Orlando, Florida, made arrangements for me to attend. It was so exciting! I met many very interesting people from different parts of the United States and Canada. I liked them all! They were so nice to me.

The meeting I attended was held in the International Banquet Room of the La Palmas Hotel on International Drive, Orlando, Florida. We met at 6:00 p.m. for a barbecued chicken dinner. Everything was very good.

After dinner, the meeting began with Claudia Wood, Symbol System Co-ordinator, reviewing on an overhead projector Blissymbols that had previously been discussed and decided on. Then we got into the fun part of designing new symbols.

Everyone had ideas and something to say, including me! But what was really nice was that they seemed to like what I had to say and they listened to my ideas. Now, you may not think that's very important, but I do! I am just a 16-year-old, 9th grade girl with cerebral palsy. All the rest of these people are well educated teachers and leaders in their field. Of course, I have one qualification over them — that is I actually use Blissymbols. Really, it was lots of fun and I learned many things.

I was even invited back on Tuesday evening for a poolside wine and cheese reception. This was another first for me. Mother fixed me a small plate of snacks but I didn't stop talking long enough to eat them. I only had an hour and I had a lot of people to talk to, who would listen. However the food didn't go to waste. Mother ate it!□



Sarah Brothers at the poolside reception.

Advocacy — a Neverending Story

PAT CASHDOLLAR

Pat Cashdollar has been an active participant in the field of augmentative communication since the early seventies. She entered the field to gain knowledge and to obtain the best support possible for her daughter. Her determination, energy and ever-enquiring mind are evident in the following article. She is a member of the Advisory Committee for the pro-

ject Implementation Strategies for Improving the Use of Communication Aids in Schools Serving Handicapped Children being undertaken by the American Speech Language and Hearing Association. She has served as Vice-President, Advocacy, International Society of Augmentative and Alternative Communication (ISAAC), 1983-1986.

Advocacy. Do you know what advocacy is? I've spent many years defining advocacy for a variety of folk, from trained professionals, to individuals who are physically and mentally challenged and who are attempting to act on their own behalf. Advocacy is acting in support of another. Being the mother of a child who cannot talk, I calculate I've been an advocate for the better part of eighteen years. I've been asking questions, looking for alternatives, searching for services, demanding explanations, sharing information. I started soon after Nancy was born.

It was 1971 and a number of innovative movements were afoot. The professional community was awakening to the need for early intervention and working with parents. Families were becoming involved in a much more active way. We started by enrolling Nancy in an infant stimulation program at our United Cerebral Palsy Center. We joined the parent's group and met people who spoke freely about their concerns and the needs of their children. The free discussion and sharing of information among the parents in the program was extremely helpful. I began to look at Nancy's needs and the quality of services in a more critical way. This led me to enroll Nancy in an alternative program. The new program demanded coordination of time and resources from our entire family, but it was the basis of the success Nancy has had. She developed what limited abilities her mobility allowed. She improved her gross and fine motor skills, auditory, visual and cognitive abilities. Today at eighteen, she is described as multiply-handicapped, non-ambulatory, nonverbal, mentally retarded, learning disabled, experiencing seizure activity and allergy induced asthma. She attends public school in a special education unit within a life-skill curriculum.

Communication is Critical

The most significant area in terms of Nancy's development and the one causing us the most agony has been communication. Communication. Do you know what communication is? For my purposes it is someone having something to share with someone else. It requires two people and one thought. There is responsibility on the part of both people in this process of communication and I'm afraid I assumed Nancy's role for many years. In the absence of any better strategy, this was necessary and I won't make any apology for that. We have a symbiotic relationship (in biology, symbiosis is the living together of different organisms for mutual benefit).

Communication begins at birth. There are very few individuals who are not able to communicate in some way. Those who are extremely limited by mental retardation, autistic-like behavior, mental illness, or physical disability require a little more effort on the listener's part; but they *can* communicate with us. Nancy seemed to be able to understand almost everything that went on around her. Her receptive language was only slightly below the level for her chronological age for many years. This was surprising since she couldn't ask questions or interact with any of us beyond answering in the affirmative or negative when given a choice of activities or objects. This was done by facial expression or happy/unhappy sounds until she was eight years old! Believe me, we thought we were doing everything humanly possible to provide stimulation. Looking back, we were totally unaware of how we could help Nancy be more involved in the process of developing as a unique, communicating human being.

It took many years of testing and evaluating to find out what Nancy *couldn't* do. Then we designed programs for her to practise those things. It was an exercise in endurance and futility for Nancy. If I can make one plea, it is to find an *interest* or *strength* that will serve as a channel for instruction of other skills. Please don't spend any more time than necessary trying to find the cause of the problem. Use your time and energy to enjoy one another in mutual support and growth.

Advocacy and Communication

How can advocacy and communication work together for the benefit of individuals involved?

On an individual or personal level, one needs to know where to find information. Asking the right questions will move things along faster.

Being aware of instruction materials, puts parents and advocates in an excellent position for contributing to the team process during any conference on educational programming. Any suggestion that makes living together a little easier or more satisfying for the individual with the special need or those responsible for his/her daily care, is worthy of consideration. One school system in the United States *expects* parents to contribute goals to the individualized educational plan for their student, especially within the social/community domains. A family I know, agreed to take their fifteen-year-old daughter to the movies on a regular basis so she would be able to enter into her peer's discussions about the latest...

Making the Public Comfortable

Individual advocacy also requires assuming responsibility for educating those with whom one comes in contact, regarding one's personal needs or the needs of the one you are representing. Those who have not had any contact or experience with a disabling condition can hardly be expected to know instinctively how to approach a situation and how to offer assistance. The initiative has to come from the individual with the extraordinary need. This was a difficult lesson for me to learn as it applied to Nancy and me. There are strategies and helpful hints which can be shown to individuals to make them more at ease. Many people are willing to accept disabled persons and the challenge they present *if* this can be accomplished with dignity and respect and without undue embarrassment. Many awareness programs have been developed: *Kids on the Block*, *Everybody Counts*, *Feeling Free*, *Kids Come in Special Flavours*.

Individual advocacy and case advocacy are essentially the same. They both involve attention to a

specific person and his/her situation within a specific environment or across a number of situations. One successful strategy that has been used by a parent support group where I live is using one another's help when attending meetings in matters concerning their children. Parents find it helpful, when faced with a formal appeal or an administrative review (steps in the procedure for addressing a conflict of interest), to have another group member present during the meeting. It is also helpful for parents just beginning to be actively involved to have an interested party accompany them to "even the odds" when there are more professionals than nonprofessionals present.

System Advocacy

When there are more than one or two individuals, and the situation or environment needs to be changed, we begin to work with "system advocacy". System advocacy is working for more than one person for the purpose of changing a particular service delivery system to make it more responsive to the needs of individuals dependent on the system. Education, health care, employment, insurance, recreation, religion and other areas of daily living are systems that have changed through the efforts of advocates. Generally, system advocacy needs to be addressed by an organized group with a specific agenda. Parents have been in the forefront in establishing many lobbying organizations. Professional groups have formed organizations to deal with specific areas of interest. Imagine what could be accomplished if the parents, consumers and professionals joined together!

Advocacy through ISAAC

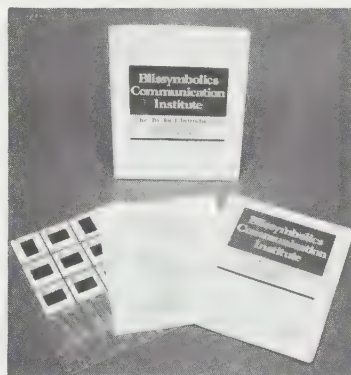
The International Society for Augmentative and Alternative Communication (ISAAC) was formed in 1983 to do just that. I was elected

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Vice-President of Advocacy. As a parent I am considered a secondary consumer. Nola Millin was appointed Consumer Affairs chairperson. Nola is a primary consumer, a young woman living in Windsor, Ontario and attending university. We were charged with developing an agenda to keep the needs of augmentative communicators before the professionals in the many fields that impact on our lives. International and national issues are pretty heady stuff for Nola and me. We have learned a great deal about the machinery that has to be set in motion on those levels. The machinery is similar to that which is operating on the local level. It just needs greater lead time.

Advocacy still has a long way to go and each of us needs to make a commitment to do one more thing or do the same thing one more time. Reach out! Join ISAAC and help us work together. Nola and I will be in Cardiff in September, talking with consumers and parents about ways to make society more responsive. □

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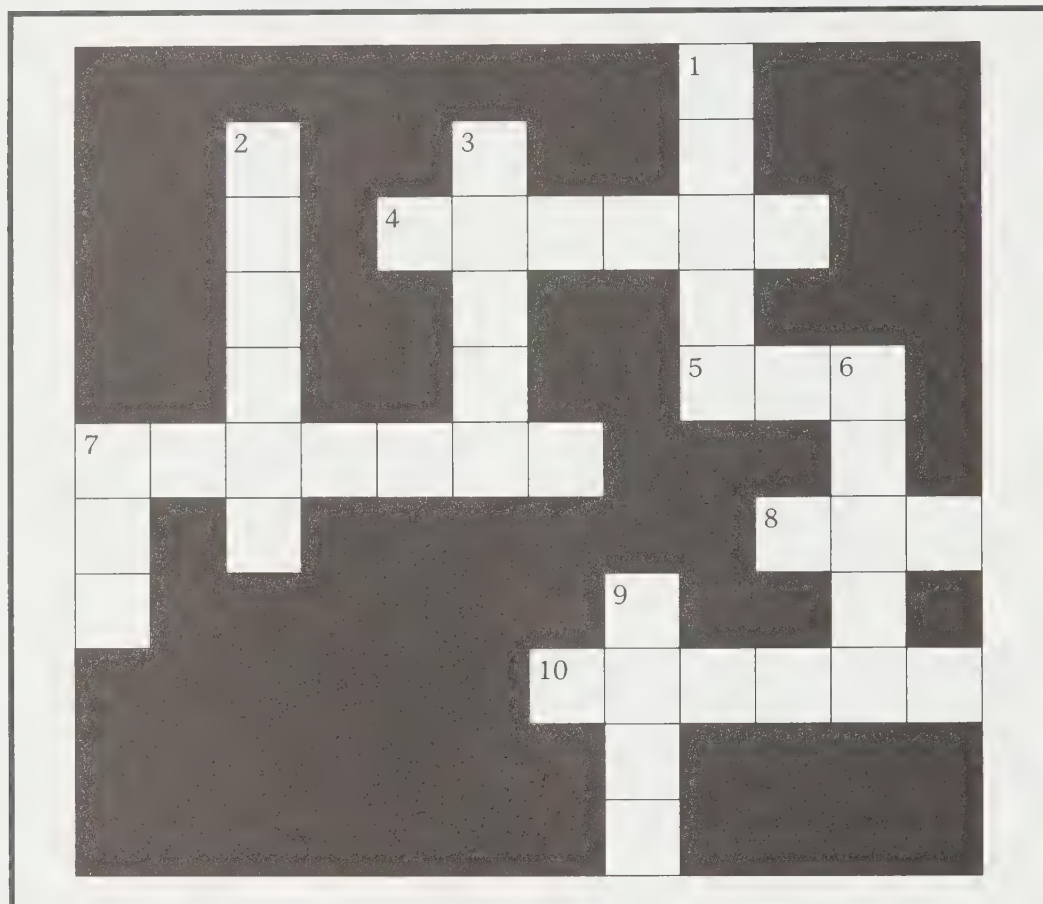
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A Blissymbol Crossword Puzzle

Familiarize yourself with some of the new animal symbols by completing this Blissymbol Crossword Puzzle. Clues include an explanation of the symbol components of each Blissymbol.

FARM ANIMALS



Across Clues

4. horse + work: an animal resembling a horse which is commonly used to assist with work
5. animal + pictograph of tail
7. bird + food: a bird commonly used for food
8. animal + pictograph of tail
10. bird + food + big: a large bird commonly used for food

Down Clues

1. horned animal + cloth
2. rodent + ear
3. animal + pictograph of head and neck
6. water bird + big
7. horned animal + female
9. bird + water

Answers to Crossword Puzzle: See p.23

Blissymbolics is a meaning-based, augmentative communication system offering vocabulary, structure and strategies to stimulate communication and cognitive development. It can benefit persons of all age and intellectual levels who have the potential and opportunity for interactive, functional communication. Blissymbolics can be used independently, with a variety of picture systems and technologies, or as a complement to words and spelling.

Blissymbols used herein are derived from the symbols described in the work *Semantography*, original copyright © C. K. Bliss, 1949.

September 1982, C. K. Bliss granted an exclusive, non-cancellable and perpetual, world-wide license to the Blissymbolics Communication Institute, for the application of Blissymbols, for use by handicapped persons and persons having communication, language and learning difficulties.

The symbol composition and drawings appearing in articles are in accordance with *Blissymbols for Use*, compiled and edited by Barbara Hehner, and published by the Blissymbolics Communication Institute, Toronto, 1980.

SYSTEM DEVELOPMENT NEWS

International Symbol News



Principles of the System



The system of Blissymbolics continues to grow and develop with the help of an International Panel of more than 50 members from 23 countries. The Panel is composed of experienced symbol users, parents and professionals from the field of Augmentative Communication. Panel members complete questionnaires and submit ideas for new symbols once or twice a year. The System Co-ordinator studies Panel suggestions and examines ideas which have been submitted to the Symbol Office by instructors and users of Blissymbols. Once each year new symbols are submitted to a three-member Symbol Committee. Each symbol is studied and must be approved by a majority of Committee members in order to become part of the BCI Standard Vocabulary. At its last meeting, the Symbol Committee met and approved more than 50 new symbols. Write to us if you wish to be on our mailing list to receive new symbol information.

Symbol development in 1986/87 will emphasize the needs of young adult symbol users. Symbol users and instructors, please let us know your vocabulary needs, symbol ideas and suggestions.

Principles allow users and instructors to expand or extend the Standard Vocabulary to meet their needs. Some principles are listed in the book, *New Symbols added to the BCI Standard Vocabulary*. Users and instructors are invited to submit new vocabulary items created using the principles to the System Co-ordinator. These submissions will be studied for possible inclusion in the BCI Standard Vocabulary.

Below are some new symbols created using the principle which states that new grammatical forms of an existing symbol may be formed by removing, adding or substituting indicators.

Standard Symbol:

hot  (fire + two pointers suggesting radiation of heat + description indicator)

New Symbols:

heat  (fire + two pointers suggestion radiation of heat)

(to) heat  (heat + action indicator)

Standard Symbol:

worm  (earth + snake: a snake-like creature that lives under the earth)

New Symbols:

(to) wiggle  (worm + action indicator: to wiggle like a worm)

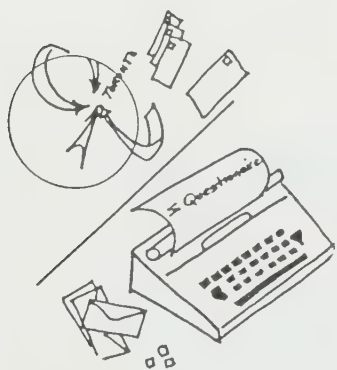
wiggly  (worm + description indicator)

Standard Symbol:

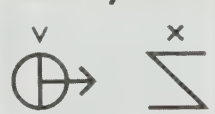
toe  (legs + feet + pointer to toe)

New Symbol:

(to) tiptoe, (to) walk on toes  (toe + action indicator)



New Symbols



The system of Blissymbolics includes many international symbols such as letters, numbers and punctuation marks. To meet a request from Spain, some internationally recognized mathematical symbols were recently added to the system. These include:

angle
(revised 1985)



parallel



perpendicular



right angle



The Paraphrase is written for those who are nonspeaking and who are moving into traditional orthography. It offers an independent reading opportunity for the growing reader.

A First for Sylvia

I'm now living on my own. I'm trying very hard to adapt. I'm learning many new things. Sometimes I'm frightened. So much is different. My new life is like a dream.

Some days I want to pack my bags. I want to go home. I want life to be simple and secure.

Then I remember that I am free. I do not have to live in an institution. It's a miracle.

After two months, it is getting easier. I thank God for this place.

About the Writer:

Sylvia Mosher is from Sault St. Marie. She is twenty-two years old. We wish her luck in living alone for the first time.

To Readers of Paraphrase:

We want to know what you think of Paraphrase. Please write your ideas to Ann Kennedy, editor, *Communicating Together*.

Sylvia Mosher's letter was first printed in the Family and Community section, *Communicating Together*, Vol. 4, No. 1, March 1986.



"So this is independence!"

Blissymbols, They Really Work!

MARY ANN MCGINN

Mary Ann McGinn is a special education teacher at Samuel Kirk Center in Palatine, Illinois. She has taught multiply-handicapped children whose ages have ranged from nine to twenty-one. She has presented at national and state conferences on "Adaptive Materials for the Multiply-handicapped".

Blissymbolics — I had read about it briefly during my seven years of teaching multiply-handicapped students but I had never had a student that used the system, nor was I ever really sold on it. I had the typical doubts of people who don't really understand Blissymbolics: "It's too hard for the students I teach"; "If they can understand Bliss, why not teach them to read". But now after using Blissymbols, it's my students that have taught me a lesson or two!

For the last two years my class has used Blissymbols successfully to the amazement of their parents and our staff. It was because of Karen, that we even considered using Blissymbols. She was new to our program and was communicating with

a Blissboard. In preparing for her integration into our class, our speech therapist and I read as much as we could on the system and ordered support materials. After learning more about it, we were surprised to find that we were excited and anxious to begin.

Begin With Small Boards

We initially planned to use it with only one other student but the others started showing interest and began learning some symbols on their own. We ordered more materials and immersed ourselves and our class in Blissymbols. We started out with simple boards using six to nine symbols on a page. Pages were grouped according to activities during the school day. Our first page was for snack time and included symbols to request something to eat or drink, to ask for more, to use the toilet, or to wash. For music group, we had symbols to request specific songs. We had a page for workshop that had symbols to request help, ask for more work, or to indicate that work was completed. During circle time, we had a page with weather symbols, calendar symbols, and symbols to talk about what we did during the day.

Soon we outgrew our small boards. They were too cumbersome and no longer efficient, so, we decided to use the tri-fold boards along with the stamps. Most of the children used the 7/8" stamps, although, two did use the larger stamps from the *Picture Your Blissymbols Kit*. These were selected because of the need for larger symbols to accommodate problems in vision and pointing. Gradually these students were able to move to the smaller stamps.

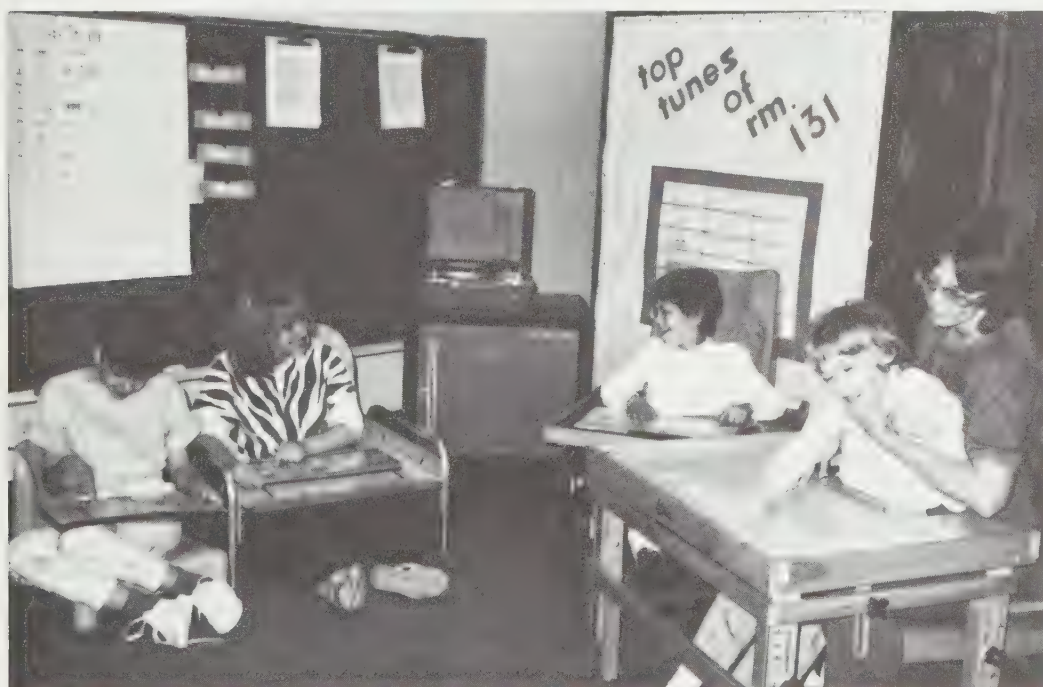
The boards, along with the communication abilities of the students, expanded each day. We used every opportunity we could to add new symbols. In cooking, we used symbols to identify utensils and foods and to assist in following recipes. We did units on feelings, plants, clothing, the fire station, and the zoo. We found ways to incorporate symbol learning with art projects and songs. We adapted puzzles, see-and-say toys, and touch-and-tell toys. We used symbols to play lotto games and card games. We made symbols for flannel board stories and a Mr. Potato Head game.

Our class was fortunate to have an Apple computer with a voice synthesizer and alternative keyboards. This enabled us to give a voice to our symbols and communication boards. We also had a Wolf, which is a portable voice synthesizer communication device. This was programmed specifically for our class. We made Bliss overlays for all of its 400 words.

Blissymbols Move Out to the Community

Our communication boards weren't limited just to the classroom. We incorporated them into our community trips. These trips consisted of going shopping, out to eat, bowling, or the library. This gave us a chance to use our symbol boards to communicate with the public. Part of our program includes taking part in a monthly outdoor education program, so we learned symbols for our trips to Sunrise Lake Camp.

We have had enormous success using Blissymbols on our communication boards. All of the students



From left to right, Samuel Kirk Center students; Gina Cirricione, Darice Rokke, Karen Strammeilo and Annie Lefevre (with Sandy Hudson)

have communication boards they take home each night. Parents have made requests for specific symbols for use at home or a hospital stay. Although all of the boards may look the same to the casual observer, each one is somewhat unique in the layout, symbol vocabulary, and stamp backing. Each child recognizes his or her own board and is quite possessive of it. They are quick to correct you if you have given them the wrong board. Some of the students are able to make symbol sentences that are four or five symbols long. They now make attempts to communicate with each other using their boards. Sometimes we see them sneaking a look at someone else's board to answer a question correctly. We've seen them point to each others' boards to help someone out.

One of our girls has opened up and taken an active part in com-

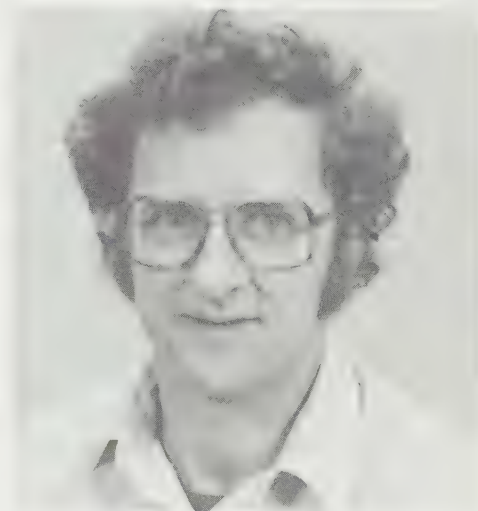
municating and participating throughout the day with the use of her board. Although she has the capabilities for intelligible speech, she elects not to talk in most situations. Any demands for speech only make her clam up and withdraw. With her board, she now has a non-threatening way to communicate.

Believe it or not there are times during the day we need to say "stop talking". During some activities, fingers are constantly moving and we need to remind them to wait their turn. We may still have a few doubters of the system, but all they need to do is to watch how the children are able to use their boards to communicate and actively participate in groups. It will be the students that teach the others how well Blissymbols work! □

RESEARCH

How Many Variables Does Communication Have?

GEB VERBURG



"Research and Publications" is written by Geb Verburg, who has been involved in the field of nonspeech communication since the mid-seventies. A cognitive scientist, Mr. Verburg is currently working as research associate in several research projects at The Hugh MacMillan Medical Centre.

Two opposite yet, I believe, intimately linked terms are appearing with increasing frequency in publications in the field of augmentative and alternative communication. These terms are: holism (or wholism) and multidimensionality. They are opposites in that holism expresses a oneness, a togetherness, or at least a belonging to a (single) whole, while multidimensionality denotes a manifold plurality, vast numbers of relevant or irrelevant variables that may or may not have something to do with our practice and our research. Both terms are being applied to augmentative and alternative communication for common reasons.

Practice versus Research

Ironically, for those people involved in augmentative communication services, holism and multidimensionality are not concepts but are the reality of living and working as or with nonspeaking persons. Daily living compels every augmentative com-

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municator, parent or facilitator to address the social, educational, psychological, vocational and technical aspects of augmentative communication systems and their use. In these practical situations, holism and multidimensionality are facts of life and as such are virtually unnoticed. Not so in research and theory: here the situation is almost the exact reverse. Rather than being holistic and multidimensional, research necessarily focusses on a part of the whole and often involves only a few variables. However, as more studies are performed the number of variables that are recognized as playing a role in augmentative communication processes increases.

Growing Complexity

"Holism" and "multidimensionality" are therefore symptoms of the explosion of knowledge and research in the field. The terms are evidence of the growing realization that the processes involved in the many aspects of augmentative communication are each influenced by many variables. These must all be examined if we are to understand the factors involved in choosing a communication system, a vocabulary, and a device; learning the symbols or signs; mastering the device; and learning to effectively interact with (strange or familiar) others.

As researchers look more closely at what is happening when augmentative communicators learn and use symbols and when they use systems and devices for communication interaction, new phenomena, new strategies, new concepts and new facts come to light.

I find this extremely exciting and more than a little overwhelming. It is exciting because it means that we are beginning to find out about the *process* of augmentative communication. And it is overwhelming because of two major factors that govern the augmentative and alternative communication field. Firstly there are many different disciplines that make up the field. Each brings its own research tradition and views the field from its own perspective. Secondly, as observed by Arlene

Kraat in her book *Communication Interaction between Aided and Natural Speakers*, it is probably inappropriate to use a normal conversational model to analyze the communication interaction of augmented speakers. Instead new models should be created to incorporate the system and/or device within the total communication activity of nonspeaking persons.

The need for new models is equally valid for other areas. Symbol learning, for example, bears a resemblance to language learning and to concept learning and it shares properties with certain visual perceptual recall and recognition tasks. Yet as an ongoing event in a symbol user's life, learning symbols is a unique process which requires its own model(s) and theory.

Implications For Research and Service

What does this mean for the researchers and for service providers? How do our symptomatic terms "holism" and "multidimensionality" fit in?

In the long view, the problem signaled by the terms is caused largely by the sheer number of variables, but it is exacerbated by the fact that we do not know yet which variables are important and which ones can safely be ignored. It is here that theories, models or "theorettes" (little theories) can be expected to come to the rescue.

Holism and multidimensionality can then be promoted from symptoms to theoretical approaches.

The multidimensional approach can use the powerful statistical tools (factor analysis, multidimensional scaling, and multiple regression) to separate the relevant from irrelevant variables. A significant problem for this approach will be the high number of subjects required. This will likely require multiple site, joint research projects.

The holistic approach lacks these statistical tools and must therefore find a way to represent and explain a process as a whole. I will return to this challenge in the next issue and will conclude this article with a prediction and an appeal.

I believe that 1987 will see the

emergence of formal subspecialties. With this specialization, the number of people who can encompass the field as a whole will gradually diminish. This is sad, in a way, but necessary and unavoidable.

In viewing the present, there are now people who have a nearly comprehensive view of the field, I encourage them to write books not for their peers but for augmentative communicators, parents, teachers, therapists, engineers, speech-language pathologists and psychologists. Arlene Kraat's book is an example of a magnificently comprehensive review of research in communicative interaction between aided and natural speakers, which is directed primarily to researchers. When reading it I felt that the wealth of information in the book could be of tremendous help to parents and other caregivers if written for that audience.

Even though these practical (as opposed to theoretical or empirical) books might be viewed as premature in light of knowledge from ongoing research, they could be written from a holistic point of view and prepare for and eventually enhance the detail that future research will furnish. I would hope that the models too, whether holistic or multidimensional, would help everyone to get a better grasp on what happens when people learn and use augmentative communication. □

Editor's Note:

Our readers are encouraged to seriously consider Geb Verburg's challenge to write in a manner that can be appreciated by augmentative communicators, their families and a broad spectrum of professionals. We invite them to submit short articles to *Communicating Together!* We welcome the opportunity of publishing, "from a holistic point of view", and of providing some of the material that will enhance future research when it "furnishes the detail". □

Reference

- Kraat, A.W., *Communication Interaction between Aided and Natural Speakers*. IPCAS, 1984.

The Communication and Telecommunication Needs of the Cerebral Palsied Population in Canada

JANE GREEN

Jane Green is a lecturer in Special Education at Memorial University in Newfoundland. She was formerly principal of Virginia Waters School in St. John's. She and Barbara Hopkins, Director of the Diagnostic and Remedial Unit, Faculty of Education, Memorial University undertook an extensive study for the federal government of the communication and telecommunication needs of Canadians with cerebral palsy. Mrs. Green wrote the following article about this study.

"If all my possessions were taken from me with one exception I would choose the power of communication, for by it I would soon regain all the rest." Daniel Webster.

From September 1983 to May 1984 Barbara Hopkins and I were privileged to work on the preparation of a report entitled *The Communication and Telecommunication Needs of the Cerebral Palsied Population in Canada* at the request of the federal government's Department of Communications. This department has funded a series of studies to investigate the special communication needs of disabled Canadians, such as *The Telecommunication Needs of the Blind and Otherwise Print-Handicapped* (Griffiths, 1981) and *The Communication and Telecommunication Needs of the Speech-Impaired* (Pressman, 1983). Submitted through Memorial University of Newfoundland, our report was released for distribution in May 1985.

The time frame and budget constraints did not allow this to be a demographic study. Our policy adviser in Ottawa said, "We would like you to get out and talk to people. We want a reflection of the present services, the unmet needs and concerns of the population and those who work with them."

It is well known that a high pro-

portion of people with cerebral palsy have difficulty in communicating by speech because of varying degrees of dysarthria. In many cases motor impairment also affects the ability to write. In the past, and still sometimes today, this inability to communicate well has often been equated with a lack of cognitive ability. However, during the last fifteen years there has been a burgeoning of development and use of alternative and augmentative methods of communication. This, along with development in technology is leading to a brighter future for those concerned.

Only a few weeks before we were invited to submit a proposal, Justin Clark, severely disabled with cerebral palsy and nonspeaking, had made legal history. He was the first Canadian to use Blissymbols to defend, in an Ottawa court of law, his right to make decisions concerning his own life. During the hearing, the media focussed the attention of the nation on this young man. People were asking each other questions such as, "There must be others like Justin. Have they, like him, learned to communicate their needs, feelings and ideas through an augmentative communication system?" Some people may have considered related issues: What is being done for school-aged children and the older adults with communication difficulties? Are parents of young children at risk receiving the support they need to help their children? What role is technology playing in helping a person communicate face-to-face and across distances?

Identifying Problems

These were just some of the questions we addressed in the study and to which, as might be expected, we received diverse answers. It was found that there were still people whom the world seemed to pass by. An example was the intelligent forty-year-old gentleman, severely disabled with athetoid cerebral palsy, who had lived in a senior citizens' home since he was sixteen. He asked me, "What is life for?"

His speech was hard to understand, but his main problem was an environment, totally lacking in stimulation. He listened a trifle cynically as I tried to explain to him how technology could enable a disabled person to play an active role in society.

In other places, middle-aged and younger people were learning how to communicate efficiently for the first time and subsequently were able to move out of institutions into society. Some severely disabled young adults were living independently. Some were in training programs. However, it was noted that very few were in the work force. Use of the telephone and printed materials posed difficulties to many.

School teachers in every province and the North West Territories reported use of augmentative communication systems, in particular Blissymbolics, but also picture boards, word and letter boards and some signing systems. Within the study, forty-four percent of the school-aged nonspeaking children had access to an electric typewriter and thirty-three percent to a microcomputer. Many young disabled children were using switch-operated toys.

Different concerns and needs were expressed from province to province. In some areas people were looking for basic information about augmentative communication systems and technical aids; in others, the concern might be for funding a second computer for home or school. Some concerns rated highly across the country. Parents of young children were asking for help with the development of early language skills and were anxious about obtaining appropriate schooling for their children. Teenagers and their parents were con-

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cerned about the future when school was finished. Speech pathologists were concerned about the lack of trained personnel in the nonspeech communication field. Professionals as a whole complained of feeling isolated from sources of information and training programs. Significantly and poignantly, a majority of the nonspeaking adults rated "people with the time to talk to us" as their greatest need.

Communication Links are Needed

Our recommendations stressed the need for communication links on many levels. The technology is there. It is the human factor which

needs to be mobilized. People will need to work together — government departments, voluntary agencies, community organizations, professionals of many disciplines, researchers, developers and distributors of communication aids, families and cerebral palsied individuals themselves. The establishment and linkage of regional communication resource centres would focus on the needs of an area and contribute to the sharing of information and expertise across the country.

A report can be written and do little more than gather dust. If you feel strongly about any of the issues contained in this report, please take action. On my travels, a medical

doctor told me regretfully, "The population you are looking at is a voiceless minority within a minority and as such is at the bottom of the barrel as far as services go." If there is any humanity left in the world surely we can change that. □

Editor's Note:

Copies of the report *The Communication and Telecommunication Needs of the Cerebral Palsied Population in Canada* may be obtained free of charge by writing:

The Department of Communications, Broadcasting and Social Policy Branch, Journal Tower North, 300 Slater Street, Ottawa, Ontario K1A 0C8. Telephone: (613) 995-9943

AUGMENTATIVE COMMUNICATION

Vocabulary Versatility For The Person Who Is Nonspeaking

GAIL M. VAN TATENHOVE

Gail Van Tatenhove is a speech pathologist with the Communication Systems Evaluation Centre (CSEC) in Orlando, Florida. One of the areas to which Ms. Van Tatenhove has given special attention has been cognitive processing associated with augmentative communication. The following article explores cognitive processing and vocabulary usage in a thought-provoking way.

Of all the problems encountered by nonspeaking persons, versatility with words is one of the most pervasive. Take the simple word *run*: I can run while my car will not run; although my thoughts run in circles my nose has finally stopped running; I always seem to have a run in my nylons; I watch baseball teams score runs; have a sly uncle on the run; have been run down and run off; want to run away or run around; and we can talk of this again, next time I run into you!

In the above example, the word *run* was used as a noun, verb, modifier and in idiomatic context. Words do not carry unitary, unalterable, static meanings. Yet, most fundamental augmentative communica-

tion systems are designed with a vocabulary set which is organized in a left-to-right syntactical configuration. It is often colour coded to enhance classification and location of the vocabulary and sometimes divided into levels or multiple displays to accommodate additional vocabulary. These techniques have been successful in organizing systems; however, static application of traditional organizational formats may be contributing to a lack of versatility in vocabulary use.

Steps in Development of Classification Skills

We need to review the sequence of normal cognitive and vocabulary development. Research by Wiig and Semel closely ties vocabulary versatility with classification skills. They note that children must see how objects are related in order to use strategies to alter the meaning of words. They list a brief description of five developmental classification skills:

Step 1: Belonging

Student sees functional relationship between two objects.
e.g. doll with bed.

Step 2: Sorting

Student can continue or start a grouping by one similar, salient, frequently visual feature.
e.g. matches combs with combs, toothbrushes with toothbrushes.

Step 3: True Classes

Student sees an overriding feature of visually dissimilar objects to create a grouping. e.g. comb, brush, barette = things that go in hair.

Step 4: Class Hierarchies

Student recognizes subgroupings within a set. e.g. shoe, slipper, galoshes sock, hose = things that go on feet; subgroups of outside and inside coverings.

Step 5: Class Inclusion

Student understands relations among different levels of the hierarchy. e.g. galoshes = a protective covering which could be grouped alone or with shoes and slippers, but not socks or hose.

In summary the development of classification begins by the student simply seeing functional relationships between two objects and progresses until the child is able to understand the different relationships among many levels of a hierarchy of classification.

These cognitive skills are reflected in the way children acquire their word knowledge. They first use words in their most prototypical context, that is those that are most natural and socially acceptable. For example, *run* is used first as a verb. As the student develops classification skills, *run* is then used as a noun, modifier or as part of an idiomatic phrase. Words with general meaning are used earlier and with greater variety than words with narrow meanings. For example, the

modifier *big* covers the dimensions, of volume, height and width and is used more often and earlier than *tall* which only covers height.

Based on these few principles it is possible to outline a series of tasks designed to promote vocabulary versatility. This normal developmental data suggests factors that we should consider in vocabulary selection, organizational design and the teaching of versatility strategies. Relating to the five levels of classification development as a framework, I wish to propose some general therapy goals.

Goals of Therapy

For the Level 1 child at the "belonging" stage, a foundation of prevocabulary versatility needs to be set. Adults should model and explain the relationship between objects. They should label variations of objects in the environment with the same word and provide a variety of classification experiences. The student's display should still promote visual organization through colour coding and possibly through the syntactic and/or situation placement of vocabulary items.

The Level 2 child who is at "the sorting" stage is beginning to see characteristics which make objects similar. Students at this stage are prime candidates for early vocabulary versatility experiences. The instructor can support the learning by introducing modifiers which describe multiple dimensions. Students should be encouraged to use these modifiers in a variety of ways. Multiple meaning words should be introduced in their most prototypical context first; for example, *light* should be presented first as a noun and then have its meaning expanded within the noun class. After *light* is used directly it could then be used for flashlight, streetlight, candlelight.

As the student develops through the classification skills of stage 3, the vocabulary versatility strategies can be introduced: *opposite of*, *belongs to*, and *similar to*. These strategies tap the students' development of antonyms, synonyms and object relationships. As preparation for moving to Level 4, the instructor should consider developing training boards which give students the opportunity to move vocabulary items from class to class. This helps them visualize how a word can belong

to a variety of semantic classes.

At Level 4 students are better equipped to play with words and understand more sophisticated vocabulary. To promote the application of this vocabulary ability as the augmentative communication system is used, additional vocabulary versatility strategies can be introduced including *part of* and *Blissymbol part*. With these strategies, students can breakdown sequential symbols and experiment with creating new symbols; they are thus able to emphasize not only versatility of words, but versatility of symbol parts. At this stage, instruction can focus on training multiple meaning words across grammatic classes. For example, now the word *light* can be used as a noun, verb and modifier. The torch light can light one's way, carrying a light load.

Finally, as students make the transition to Level 5, their classification skills allow them to deal with figurative language. They can view objects across classes and as parts of greater wholes. This is the ideal time to introduce use of the special symbols of *classifier*, *metaphor* and *intensity*.

These treatment goals cannot reflect all the possible implications of normal cognitive and vocabulary development. Much additional experience is needed. We need to explore different ways of introducing training tasks and training boards with variations in organization and colour coding and experiment with many procedures that will allow the student to denote meaning changes.

We must all ask the question as to whether the application of these treatment procedures can offset the overriding problems of vocabulary use for the nonspeaking child. The answer must come from all of us as we rethink our approach to displaying and teaching vocabulary. □

Editor's Note:

Gail Van Tatenhove first presented this perspective at the BCI Affiliate Meeting May, 1986. Although Ms. Van Tatenhove mentioned no names of graphic systems in her discussion it is obvious how an audience of Blissymbol specialists responded to her ideas. As well as the selection and arrangement of vocabulary items facilitating word versatility, it is clear that the capabilities of the individual's total

augmentative communication system and the type of symbolic representation within it, can inhibit or support versatility of usage. For those well experienced in Blissymbol communication, Ms. Van Tatenhove's presentation stimulated another rich dimension for consideration. Many characteristics of Blissymbolics can be used to encourage versatility of usage: the way in which any one symbol can have a range of meanings, the manner in which a Blissymbol is composed of meaning-based components, the many strategies within the system, the widely demonstrated use of metaphor in Blissymbol conversations. William Yovetich's "Perspective" in the next issue of *Communicating Together* will be suggesting that we give attention to the way in which Blissymbols "concretize the abstract". By reading both Yovetich and Van Tatenhove, we can gain insights that will be helpful in deciding not only how to select and organize vocabulary but also, in deciding what way concepts should be graphically represented for the greatest versatility in word usage.

Reference

- Wiig, E. and E. Semel. *Language Assessment and Intervention for the Learning Disabled*, Columbus, OH: Charles E. Merrill Publishing Co., 1980.

About the Publisher

The Blissymbolics Communication Institute, since its inception in 1975, has worked toward enhancing the lives of nonspeaking people. In its early years, the Institute's primary focus was the development and application of Blissymbolics as an augmentative communication system around the world. This role continues but within a broader mandate that reflects the philosophy and perspective of its professional staff.

BCI supports effective communication by nonspeaking people through:

- (1) advancing augmentative communication techniques and strategies that contribute to cognitive, social and emotional growth;
- (2) drawing attention to the quality of the learning experience and identifying those types of augmentative communication instruction that contribute to cognitive, social and emotional growth;
- (3) educating, informing and influencing those who are in a position to make positive life changes for nonspeaking people.

An Interview with Betty-Jean MacDonald

IAN HENDERSON



Betty-Jean MacDonald is Coordinator of the Ontario Ministry of Health Assistive Devices Program (ADP). This program pays 75 per cent of the cost of selected equipment, including communication aids, for the physically disabled. All residents of Ontario age twenty-one or younger are eligible for assistance; the program will be extended to adults in the near future. Ms. MacDonald was interviewed for Communicating Together by Ian Henderson, freelance writer.

Communicating Together

You've been with ADP since its start in 1981. What kinds of concerns led to the development of the program?

MacDonald

I think the major impetus came during the International Year of the Disabled. Voluntary agencies and advocacy groups spoke on behalf of people with physical disabilities, demonstrating to government that there was a real need for assistance to these people. Before that, families had to depend on their own resources or the voluntary sector.

Work on ADP started in 1981, but we didn't inform the public until July of 1982, when we had to be ready with a program for children. Since July of '82 there have been major additions. In 1984 we introduced visual aids and communication aids. They weren't initially thought of as being important to

include, and I think that really reflected people's general understanding of what kinds of needs were out there.

Communicating Together

What sort of budget did ADP have at the start?

MacDonald

For the equipment itself there was a ten million dollar annual budget. The initial amount was given, with the idea that it would take about three years from when the last part was introduced to reach maturity. We are just reaching that point now. We are not in a situation of having to restrain the numbers of pieces of equipment that can be given to people.

Communicating Together

Speaking of planning, how do you ensure that ADP keeps pace with changes in the field?

MacDonald

We have a number of subcommittees that provide advice on exactly what kind of equipment should be included and how policy should be developed. People from relevant ministries — Health, Community and Social Services, Education — sit on these subcommittees and Assistive Devices personnel meet with them regularly. The subcommittees also include consumers, parents of people who are using the various kinds of equipment, health-care professionals from all the relevant backgrounds, and people who are involved in the selling and development of particular devices.

Neither I nor my staff could pretend to keep in touch with developments in this whole field of rehabilitation aids. It's an enormous undertaking. What we try to do is make sure that we get as wide an opinion sample as possible. For example, sometimes equipment becomes obsolete, or we find that some things are not as effective as we thought them to be. Again, we rely on a peer review process, asking people in the field to make recommendations to us.

Communicating Together

Could you describe the actual application process? Suppose there was an individual who required a special seat insert for a wheelchair, and at the same time it was decided that to improve communication abilities the individual would benefit from use of a microcomputer.

MacDonald

First, it would depend on where the assessment of that individual was made. Basically we endorse health-care teams in the field, identifying those that have the level of expertise to make them competent to do assessments. Special problems, like the application of computers for nonspeaking individuals, are directed to a centre where there are people with this type of experience. There are only six centres in the province that can prescribe that kind of device.

Let's say that the initial assessment was made at any one of many child treatment centres around the province, one that has no seating facility, or augmentative communication clinic. The child would then be referred to the facility that could provide this support. The child would be seen by a team — a physician, likely an occupational therapist, undoubtedly an augmentative communication specialist — that would be involved with the family in making the decisions. Every prescription that comes to the ministry is checked to ensure that the appropriate individuals have been involved with the family in making choices.

Once these choices are made, we have a form that is like a prescription form that a physician would fill out for drugs. The assessment team makes the selection from the ADP catalogue. In the case of a custom seating insert, the facility would begin to make that particular device. The family is charged 25 per cent of the cost, and the Ministry of Health is billed directly for the other 75 per cent. For very expensive kinds of equipment like computers, or equipment that we think is going to have a limited time of use by a particular child,

we have a special category called "centre-owned". We provide the equipment to the centre or hospital — we pay all the bills for its purchase — then we share the administrative and maintenance costs with the family. The family pays 25 per cent of these ongoing expenses, we pay 75 per cent. The equipment then is basically theirs to use until the needs of that child change. The equipment then goes back to the centre to be used by another child.

Communicating Together

You mentioned that you see the program entering its maturity. Do you think that you now have everything in place?

MacDonald

Yes, in that we have a program that's operational. But the whole area is new. I think rehabilitation is going through a significant growth period. It's not just getting bigger, it's changing significantly.

I guess, in the last year, I've spent almost 80 per cent of my time in promotion and education. I talk with all kinds of groups, and I have a staff person whose whole job is to work with community groups. We help them identify needs relating to assistive devices and make sure that our programs change to reflect these needs. ADP is within the Community Health Programs Branch of the Ministry of Health, showing that our key focus is community. We must first concentrate on developing support to provide equipment, and also we must make sure that there is an adequate delivery of service in place.

My role is very challenging because it's so varied. Lots of things about it are frustrating and painful, because we are constantly in touch with families who are in very difficult, and stressful situations. But thinking that you can help families to overcome some of their difficult times is a satisfying thing. □

Editor's Note:

The Assistive Devices Program is located at 15 Overlea Blvd., 6th Floor, Toronto, Ontario M4H 1A9. In Toronto, call 963-1956. Outside Toronto, call toll-free 1-800-268-6021.

SHARING IDEAS WITH NORA

Partner Assisted Scanning

"Sharing Ideas with Nora" is a forum for sharing information concerning all aspects of augmentative communication. Nora Rothschild, consultant with the Augmentative Communication Service of The Hugh MacMillan Medical Centre, heads up a regular column focussing on readers' questions, problems and experiences.

There are many nonspeaking physically handicapped individuals who are not able to point directly to a communication display. They are not able to use their fingers, pointers attached to their hands or head, or light beams to point to a specific item. Many of these individuals are frustrated. They have a need to communicate and are cognitively able to learn the meanings of specific pictures, symbols, alphabet letters, words or combinations of these systems.

Of the options available to these individuals, one to be given serious consideration is *partner assisted scanning*. As with all communication displays, the design must meet the user's needs depending on such factors as age, environment, physical functioning, positioning, vocabulary needs, personality, visual and perceptual skills and cognitive levels. Additional considerations are necessary if *partner assisted scanning* is to be incorporated within the user's augmentative communication system.

Partner assisted scanning requires the communication aid user to have one reliable, consistent, voluntary movement to indicate an affirmative response. This "yes" response can be any prearranged signal: an eye-



Figure 1: Display with items separated and mounted on black bristol board

brow lift; a movement of the hand; a vocalization; a switch activation of a call bell or Voicemate; a head nod; a blink.

The communication partner is required to refer to the communication display and present a stepped series of choices or questions. The communication partner can be directed toward a specific section of the display through the user's eye gaze or through gross, direct targeting by a body part, e.g., by the user's fist hitting a section of the display. Within the indicated area of the display the partner "scans" the items at a pace that is acceptable to the user. Once the desired item is reached, the communication aid user indicates this by using his/her prearranged signal.

To increase the speed and efficiency of this system, the communication display is organized so that the graphic items are arranged in groupings. The size and number of graphic items within each grouping will vary with each individual. In some instances groupings may need to be separated although care should be taken to avoid wasting needed space (Figure 1). In other instances, a clear border may be sufficient to delineate groupings (Figure 2).

In setting up a *partner assisted scanning* system, the clinician should:

1. Determine the size of each graphic item the communication aid user can identify or "read".
2. Determine the number of graphic items within each grouping. This will depend on the user's cognitive, visual, perceptual and linguistic skills. Achieve a balance between too many groupings and too many items within each grouping.
3. Ensure that most frequently used



Figure 2: Display with items separated with coloured tape as marking boundaries

items are grouped near the top. For most clients, avoid placing frequently used items in the first square of a row or column as it may be difficult for them to provide two quick confirmation signals one after another.

4. When introducing these displays, use temporary mock-ups with vocabulary items familiar to the individual. Careful observation during trial training will likely dictate modifications to increase efficiency.

Proper Positioning of Partners

When using a *partner assisted scanning* system in which the user's eye gaze indicates each scanning area, partner and user should ideally face each other at the same eye level. Tilt the display upwards so that the partner can easily and clearly identify the area to which the user's eye gaze is directed; it is difficult to distinguish eye gaze if the communication aid user is looking down at a flat display. The display should not be so high as to impede the user's visual field or the partner's view of the user's facial expression and gestures. If fist pointing is being used to indicate the section to be scanned, position the display at a level and angle that will facilitate accurate targeting by the user and allow both user and partner to use facial expression and eye contact within their interaction.

The following steps are required for effective *partner assisted scanning*:

1. The user directs the partner to the grouping containing the desired graphic item using eye gaze or direct gross pointing.
2. The partner identifies the grouping and requests confirmation.
3. The user confirms. If the partner identifies an incorrect grouping, the user does not respond and the partner then points to other nearby groupings one at a time until the user signals a confirmation.
4. Next the partner requests the appropriate row or column by pointing to each of them in succession until the user signals a confirmation. *No response* is interpreted as a direction to continue scanning.
5. Once the row or column is established, the partner points to one item at a time moving along the items until the user signals that the correct one has been reached.

The speed and order of scanning is individual. It is helpful to include

an instructional section on the display, stating the individual's preference for the order of scanning the rows or columns and providing statements that allow the user to indicate to the partner to either slow down or speed up the rate of scanning. *Partner assisted scanning* can be very efficient once established.

Advantages and Disadvantages

Some advantages to *partner assisted scanning* are:

1. The system is fairly accurate and reliable, for only one response signal is required.
2. Since it is dependent upon one discreet movement, either by eye gaze or fist point, it is not physically demanding.
3. A natural tendency for speaking partners is to ask questions of communication aid users and thus partners seem comfortable with

the system.

Some of the disadvantages of this system include the following:

1. The user is dependent on a partner in order to communicate. If the partner does not present choices, the user is unable to communicate.
2. The speed of communication is dependent upon the partner.

If you have examples or modifications of this idea, please share them with us. Write to "Sharing Ideas with Nora", c/o *Communicating Together*. □

Answers to Crossword Puzzle (from p.12)

			S	
R	H		H	
A		D	O	N
B	R		E	
B	S		P	I
C	H	I	C	K
O	T		D	O
W			S	
			T	
			K	

SCHEDULE OF EVENTS

AACE Special Interest Seminars

In Ontario

Dates of AACE Seminars

Due to a move of our offices and resource centre in the fall of 1986, the seminars scheduled for October have been postponed.

Watch for news of our new location, and dates of the 1987 seminar schedule to be announced in the next issue.

Southeast Augmentative Communication Conference

In Alabama

- October 10, 11, 1986 in Birmingham
Guest Speaker: Dr. Stephen Calculator

Contact: Pam Elder, Southeast Augmentative Communication Conference, United Cerebral Palsy of Greater Birmingham, Inc., 2430 11th Avenue North, Birmingham, AL 35234, U.S.A.

ISAAC — ACS Seminars

The International Society for Augmentative and Alternative Communication (ISAAC) and the Augmentative Communication Service (ACS) of The Hugh MacMillan Centre are co-sponsoring the forthcoming seminars.

In Ontario

- November 3, 4, 1986 in Toronto
"Assessment and Intervention Issues in Augmentative Communication — to Develop Communication Competence".
- February 12, 13, 1987 in Toronto
"Assessment and Intervention Issues in Augmentative Communication — to Establish Basic Communication Skills".

Contact: Karen Henry, ACS, The Hugh MacMillan Medical Centre, 350 Rumsey Road, Toronto, Ontario, Canada M4G 1R8
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